

LUPEROX® 256

1. PRODUCT AND COMPANY IDENTIFICATION

Company

Arkema Inc. 900 First Avenue King of Prussia, Pennsylvania 19406

Functional Additives

Customer Service Telephone Number: (800) 331-7654

(Monday through Friday, 8:00 AM to 5:00 PM EST)

Emergency Information

Transportation: CHEMTREC: (800) 424-9300

(24 hrs., 7 days a week)

Medical: Rocky Mountain Poison Center: (866) 767-5089

(24 hrs., 7 days a week)

Product Information

Product name: LUPEROX® 256
Synonyms: Peroxyesters
Molecular formula: C24 H46 O6

Chemical family: Organic peroxide - peroxyesters

Product use: initiator/catalyst

2. HAZARDS IDENTIFICATION

Emergency Overview

Color: colourless
Physical state: liquid
Odor: mint-like

*Classification of the substance or mixture:

Flammable liquid., Category 3, H226 Organic peroxides, Type C, H242 Serious eye damage, Category 1, H318 Reproductive toxicity, Category 2, H361

*For the full text of the H-Statements mentioned in this Section, see Section 16.

Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 1 / 18



LUPEROX® 256

GHS-Labelling

Hazard pictograms:







Signal word: Danger

Hazard statements:

H226: Flammable liquid and vapour. H242: Heating may cause a fire. H318: Causes serious eye damage.

H361 : Suspected of damaging fertility or the unborn child.

Supplemental Hazard Statements:

Organic peroxide. Hazardous decomposition may occur. Temperature controlled. Thermally unstable - refrigeration required.



LUPEROX® 256

Precautionary statements:

Prevention:

P201: Obtain special instructions before use.

P202 : Do not handle until all safety precautions have been read and understood.

P210 : Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P220: Keep/Store away from clothing/ combustible materials.

P233: Keep container tightly closed.

P234: Keep only in original container.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting/equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P280: Wear protective gloves/ eye protection/ face protection.

P281: Use personal protective equipment as required.

Response:

P303 + P361 + P353 : IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 : IF exposed or concerned: Get medical advice/ attention.

P310: Immediately call a POISON CENTER or doctor/ physician.

P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

P405 : Store locked up.

P410: Protect from sunlight.

P411 + P235: Maximum storage temperature is specified on label and in section 7 of SDS. Keep cool.

P420: Store away from other materials.

Disposal:

P501 : Dispose of contents/ container to an approved waste disposal plant.

Supplemental information:

Potential Health Effects:

If swallowed, may cause gastrointestinal irritation including nausea and vomiting.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
Hexaneperoxoic acid, 2-ethyl-, 1,1,4,4-tetramethyl-1,4-butanediyl ester	13052-09-0	>= 90 - <= 95 %	H242



LUPEROX® 256

Proprietary process impurity	Proprietary*	>= 4 - < 6 %	Not classified
Hydroperoxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis-	3025-88-5	<= 2 %	H241, H315, H318
1,2-Dioxane, 3,3,6,6-tetramethyl-	22431-89-6	<= 2 %	H242, H226, H335, H319, H315
2,5-Hexanediol, 2,5-dimethyl-	110-03-2	<= 1 %	H318
Hexanoic acid, 2-ethyl-	149-57-5	< 1 %	H361
Hexanoic acid, 2-ethyl-, sodium salt	19766-89-3	< 1 %	H361
Hexane	110-54-3	< 1 %	H315, H336, H373, H225, H304, H361, H411

^{*}The specific chemical identity is withheld because it is trade secret information of Arkema Inc.

4. FIRST AID MEASURES

Inhalation:

If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin:

In case of contact, immediately flush skin with plenty of water. Remove material from clothing. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Ingestion:

If swallowed, DO NOT induce vomiting. Get medical attention immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

5. FIREFIGHTING MEASURES

Extinguishing media (suitable):

Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 4 / 18

^{**}For the full text of the H-Statements mentioned in this Section, see Section 16.



LUPEROX® 256

Water spray, Foam, Dry chemical

Extinguishing media (unsuitable):

Water may be ineffective., Do not use a solid water stream as it may scatter and spread fire.

Protective equipment:

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

Further firefighting advice:

Fight fire with large amounts of water from a safe distance.

Cool closed containers exposed to fire with water spray.

Closed containers of this material may explode when subjected to heat from surrounding fire.

After a fire, wait until the material has cooled to room temperature before initiating clean-up activities.

Fire fighting equipment should be thoroughly decontaminated after use.

Fire and explosion hazards:

Contact with materials to avoid or exposure to temperatures exceeding the SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may autoignite.

When burned, the following hazardous products of combustion can occur:

Carbon oxides

Hazardous organic compounds

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, Emergency procedures, Methods and materials for containment/clean-up:

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel. Ventilate the area. Eliminate all ignition sources. Avoid generation of vapors. Contain and collect spillage with noncombustible absorbent material such as sodium bicarbonate, sodium carbonate, calcium carbonate, clean sand or non-acidic clay and then wet down (dampen) the mixture with water. DO NOT USE peat moss. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down further with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Protective equipment:

Appropriate personal protective equipment is set forth in Section 8.



LUPEROX® 256

7. HANDLING AND STORAGE

Handling

General information on handling:

Temperature controlled! Cool and maintain proper temperature for product.

Contact with materials to avoid or exposure to temperatures exceeding the SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may autoignite.

Do not taste or swallow.

Do not get in eyes, on skin, or on clothing.

Keep away from heat, sparks and flames.

No smoking.

Use only with adequate ventilation.

Wash thoroughly after handling.

Prevent product contamination.

Keep container tightly closed and away from combustible materials.

Keep only in the original container.

Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.

Container hazardous when empty.

Follow label warnings even after container is emptied.

RESIDUAL VAPORS MAY EXPLODE ON IGNITION.

DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.

Do not reuse container as it may retain hazardous product residue.

Improper disposal or reuse of this container may be dangerous and/or illegal.

Emptied container retains vapor and product residue.

Storage

General information on storage conditions:

Keep refrigerated. Keep in a dry, cool place. Keep away from direct sunlight. Keep container closed when not in use. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Outside or detached storage is preferred. Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Store out of direct sunlight in a cool well-ventilated place. Store in original container. Store away from combustibles and materials to avoid. Refer also to National Fire Protection Association (NFPA) Code 400, Hazardous Materials Code. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs) and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes which pertain to the specific local conditions of storage and use, including OSHA 29 CFR 1910.106 and NFPA 30, 70, 77, and 497.

Storage stability - Remarks:

Refrigeration required. Follow the recommended storage temperatures provided in this Section in order to maintain stability and oxygen content.

Storage incompatibility - General:

Store separate from:

Strong acids

Strong bases

Strong oxidizing agents

Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 6 / 18



Reducing agents

SAFETY DATA SHEET

LUPEROX® 256

Amines	
Accelerators	
Friedel - Crafts reaction catalyst	
transition metal salts	
metal ions	
Brass	
Copper	
Iron	
For all Organic Peroxides, compatible materials of contact are stainless steel 304 or 316 (preferred), high-density polyethylene (HDPE), polytetrafluoroethylene or glass linings.	
Temperature tolerance – Do not store above: 61 °F (16 °C)	
8. EXPOSURE CONTROLS/PERSONAL PROTECTION	
Airborne Exposure Guidelines:	
Engineering controls: Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below	

Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

sources of air contamination such as open process equipment.

Respiratory protection:

Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at

Skin protection:

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Wear chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing immediately and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 7 / 18



LUPEROX® 256

Eye protection:

Where there is potential for eye contact, wear a face shield, chemical goggles, and have eye flushing equipment immediately available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: colourless

Physical state: liquid

Odor: mint-like

Odor threshold: No data available

Flash point 120 °F (49 °C) (Setaflash closed cup)

Auto-ignition

temperature:

No data available

Lower flammable limit

(LFL):

No data available

Upper flammable limit

(UFL):

No data available

pH: No data available

Density: No data available

Specific Gravity (Relative

density):

0.928 - 0.950 (77 °F(25 °C))

Vapor pressure: 2.000 mmHg (68 °F (20 °C))

Vapor density: No data available

Boiling point/boiling

range:

Decomposes before boiling. Rate of decomposition increases with rising

temperature.

Melting point/range: $< 25 \, ^{\circ}\text{F} \, (< -4 \, ^{\circ}\text{C})$

Freezing point: No data available

Evaporation rate: No data available

Solubility in water: 0.17 g/l

Viscosity, dynamic: No data available

Oil/water partition

coefficient:

No data available

Self-Accelerating

Decomposition

104 °F (40 °C) 35 pound container

Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 8 / 18



LUPEROX® 256

Temperature (SADT):

Thermal decomposition No data available

Active oxygen content: > 6.7 %

Flammability: See GHS Classification in Section 2

10. STABILITY AND REACTIVITY

Stability:

Refrigeration required. This material is chemically unstable and should only be handled under specified conditions. See HANDLING AND STORAGE section of this SDS for specified conditions.

Hazardous reactions:

Hazardous polymerization does not occur.

Materials to avoid:

Strong acids
Strong bases
Strong oxidizing agents
Reducing agents
Accelerators
Friedel - Crafts reaction catalyst
transition metal salts
metal ions
Brass
Copper
Iron

For all Organic Peroxides, compatible materials of contact are stainless steel 304 or 316 (preferred), high-density polyethylene (HDPE), polytetrafluoroethylene or glass linings.

Conditions / hazards to avoid:

See HANDLING AND STORAGE section of this SDS for specified conditions. SADT - Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. This reaction will generate flammable vapors which may autoignite. The length of time to generate a decomposition reaction, after the SADT has been reached or exceeded, is dependent upon how much the SADT has been exceeded and the length of time needed for the reaction exotherm (heat spike from increasing decomposition rate) to initiate a rapid decomposition reaction. Typically, SADT is inversely proportional to package size. Larger packages will have a lower SADT due to smaller ratio to heat transfer area to volume of product.

Hazardous decomposition products:

Temperatures at or above SADT can result in the release of hazardous decomposition products which are flammable and may autoignite.

Thermal decomposition giving flammable and toxic products:

Carbon oxides

Hazardous organic compounds



LUPEROX® 256

11. TOXICOLOGICAL INFORMATION

Data on this material and/or its components are summarized below.

Oral:

Acute toxicity estimate > 5,000 mg/kg.

Data for Hexaneperoxoic acid, 2-ethyl-, 1,1,4,4-tetramethyl-1,4-butanediyl ester (13052-09-0)

Acute toxicity

Dermal:

No deaths occurred. (rabbit) LD0 > 2,000 mg/kg.

Inhalation:

Practically nontoxic. (rat) 4 h LC50 > 800 mg/l.

Skin Irritation:

Practically non-irritating. (rabbit) Irritation Index: 0,9/8,0. (4 h)

Eye Irritation:

Causes mild eye irritation. (rabbit) Irritation Index: 1,4/110.

Skin Sensitization:

Not a sensitizer. Guinea pig maximization test. (guinea pig) No skin allergy was observed

Repeated dose toxicity

Subchronic oral administration to rat / affected organ(s): kidney / signs: hyaline droplet nephropathy / No toxic effect directly extrapolated to humans (not considered relevant to humans)

Genotoxicity

Assessment in Vitro:

Genetic changes were observed in laboratory tests using: bacteria

No genetic changes were observed in a laboratory test using: animal cells

Genotoxicity

Assessment in Vivo:

No genetic changes were observed in laboratory tests using: mice

Developmental toxicity

Reproductive/Developmental Effects Screening Assay. Oral (rat) / No birth defects were observed.

Reproductive effects

Reproductive/Developmental Effects Screening Assay. Oral (rat) / No toxicity to reproduction.

Data for Hydroperoxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis- (3025-88-5)



LUPEROX® 256

Acute toxicity

Dermal:

No deaths occurred. (rat) LD0 = 2,000 mg/kg.

Skin Irritation:

Causes skin irritation. (rabbit) Irritation Index: 3,1/8,0.

Eye Irritation:

Causes serious eye damage. (rabbit) Irritation Index: 63/110.

Genotoxicity

Assessment in Vitro:

Both positive and negative responses for genetic changes were observed in laboratory tests using: bacteria

No genetic changes were observed in a laboratory test using: animal cells

Data for 1,2-Dioxane, 3,3,6,6-tetramethyl- (22431-89-6)

Acute toxicity

Specific target organ toxicity - single exposure:

May cause respiratory irritation.

Skin Irritation:

Causes skin irritation. (estimate based on composition)

Eye Irritation:

Causes serious eye irritation. (estimate based on composition)

Other information

The information presented is from representative materials in this chemical class. The results may vary depending on the test substance.

Data for 2,5-Hexanediol, 2,5-dimethyl- (110-03-2)

Acute toxicity

Dermal:

Practically nontoxic. (rabbit) LD50 > 9,000 mg/kg.

Skin Irritation:

Not irritating. (rabbit) Irritation Index: 0/8. (4 h)

Eye Irritation:

Causes serious eye damage. (rabbit) Irritation Index: 24/110. (24 h)

Skin Sensitization:

Not a sensitizer. LLNA: Local Lymph Node Assay. (mouse) No skin allergy was observed

Genotoxicity

Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 11 / 18



LUPEROX® 256

Assessment in Vitro:

No genetic changes were observed in laboratory tests using: bacteria

Data for Hexanoic acid, 2-ethyl-, sodium salt (19766-89-3)

Developmental toxicity

Exposure during pregnancy. oral (rat) / No birth defects were observed. (levels produced toxic effects in the mothers and offspring, delays in development, skeletal variations)

Exposure during pregnancy. oral (rabbit) / No birth defects were observed. (at doses that produce effects in mothers)

Reproductive/Developmental Effects Screening Assay. drinking water (rat) / No birth defects were observed. (delays in development)

Reproductive effects

Reproductive/Developmental Effects Screening Assay. drinking water (rat) / Effects on fertility and offspring / (impaired pup growth and development)

Other information

Information given is based on data obtained from similar substances.

Data for Hexanoic acid, 2-ethyl- (149-57-5)

Acute toxicity

Dermal:

No deaths occurred. (rat) LD0 > 2,000 mg/kg. signs: severe irritation

Inhalation

No deaths occurred. (rat) 6 h LC0 > 2.36 mg/l. (vapour)

Skin Irritation:

Causes mild skin irritation. (rabbit) (4 h)

Eye Irritation:

Not irritating. (rabbit)

Skin Sensitization:

Not a sensitizer. Guinea pig maximization test. (guinea pig) No skin allergy was observed

Repeated dose toxicity

Subchronic dietary administration to rat and mouse / affected organ(s): Gastro-intestinal tract, liver / signs: irritation, changes in organ structure or function / (reversible)

Genotoxicity

Assessment in Vitro:

No genetic changes were observed in laboratory tests using: bacteria, Genetic changes were observed in laboratory tests using:, human cells

Genotoxicity

Assessment in Vivo:

No genetic changes were observed in a laboratory test using: mice

Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 12 / 18



LUPEROX® 256

Developmental toxicity

Exposure during pregnancy. oral (rat) / No birth defects were observed. (levels produced toxic effects in the mothers and offspring, delays in development, skeletal variations)

Exposure during pregnancy. oral (rabbit) / No birth defects were observed. (at doses that produce effects in mothers)

Reproductive/Developmental Effects Screening Assay. drinking water (rat) / No birth defects were observed. (delays in development)

Reproductive effects

Reproductive/Developmental Effects Screening Assay. drinking water (rat) / Effects on fertility and offspring / (impaired pup growth and development)

Data for Hexane (110-54-3)

Developmental toxicity

Exposure during pregnancy. inhalation (mouse) / No birth defects were observed.

Exposure during pregnancy. inhalation (rat) / No birth defects were observed. (delays in development, at doses that produce effects in mothers)

Reproductive effects

Repeated administration. inhalation (rat) / Toxic effects for the reproductive system (testicular changes)

12. ECOLOGICAL INFORMATION

Chemical Fate and Pathway

Data on this material and/or its components are summarized below.

Data for Hexaneperoxoic acid, 2-ethyl-, 1,1,4,4-tetramethyl-1,4-butanediyl ester (13052-09-0)

Biodegradation:

Readily biodegradable. (28 d) biodegradation 84 %

Octanol Water Partition Coefficient:

 $\log Pow > 6.5$

Data for Hydroperoxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis- (3025-88-5)

Practically no potential to bioaccumulate.

Octanol Water Partition Coefficient:

log Pow = 1.54

Data for 2,5-Hexanediol, 2,5-dimethyl- (110-03-2)

Biodegradation:

Not readily biodegradable. (28 d) biodegradation 0 %

Biological Oxygen Demand:

< 2 mg/g

Chemical Oxygen Demand:

COD = 2,420 mg/g

Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 13 / 18



LUPEROX® 256

Octanol Water Partition Coefficient:

log Pow = 0.21

Ecotoxicology

Data on this material and/or its components are summarized below.

Data for Hexaneperoxoic acid, 2-ethyl-, 1,1,4,4-tetramethyl-1,4-butanediyl ester (13052-09-0)

Aquatic invertebrates:

No effect up to the limit of solubility. Daphnia magna (Water flea) 48 h EC50 > 100 mg/l (nominal concentrations reported)

Algae:

No effect up to the limit of solubility. Pseudokirchneriella subcapitata (green algae) 72 h ErC50 > 100 mg/l (nominal concentrations reported)

Microorganisms:

No effect up to the limit of solubility. Activated sludge 3 h EC50 > 1,000 mg/l (nominal concentrations reported)

Data for 2,5-Hexanediol, 2,5-dimethyl- (110-03-2)

Aquatic toxicity data:

Practically nontoxic. Leuciscus idus 96 h LC50 = 4,600 - 10,000 mg/l

Aquatic invertebrates:

Practically nontoxic. Daphnia magna (Water flea) 48 h > 120 mg/l

Algae:

Practically nontoxic. Pseudokirchneriella subcapitata (green algae) 72 h ErC50 > 320 mg/l

Microorganisms:

Activated sludge 0.5 h EC20 > 996 mg/l

13. DISPOSAL CONSIDERATIONS

Waste disposal:

Dilution followed by incineration is the preferred method. Dilution ratio of 10:1 in a clean, compatible, combustible solvent (i.e., Fuel Oil #2, mineral oil) will reduce reactivity hazard during incineration and transportation. Dispose of in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

14. TRANSPORT INFORMATION

US Department of Transportation (DOT)

UN Number : 3113

Proper shipping name : Organic peroxide type C, liquid, temperature controlled

Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 14 / 18



LUPEROX® 256

Technical name : (2,5-Dimethyl-2,5-di(2-ethylhexanoylperoxy) hexane, <= 100%)

Class : 5.2 Packaging group : II Marine pollutant : no

Reportable quantity : 5000 lbs ()
Control temperature : 68 °F (20 °C)
Emergency temperature : 77 °F (25 °C)

International Maritime Dangerous Goods Code (IMDG)

UN Number : 3113

Proper shipping name : ORGANIC PEROXIDE TYPE C, LIQUID, TEMPERATURE

CONTROLLED

Technical name : (2,5-DIMETHYL-2,5-DI-(2-ETHYL-HEXANOYLPEROXY)HEXANE, <=

100%)

Class : 5.2 Marine pollutant : no

Flash point : 120 °F (49 °C) Setaflash closed cup

Control temperature : 68 °F (20 °C) Emergency temperature : 77 °F (25 °C)

15. REGULATORY INFORMATION

Chemical Inventory Status

EU. EINECS EINECS Conforms to United States TSCA Inventory **TSCA** The components of this product are all on the TSCA Inventory. DSL All components of this product are on the Canadian Domestic Substances List (DSL) Canadian DSL China. Inventory of Existing Chemical Substances in IECSC (CN) Conforms to China (IECSC) Japan. ENCS - Existing and New Chemical ENCS (JP) Does not conform Substances Inventory Japan. ISHL - Inventory of Chemical Substances ISHL (JP) Does not conform Korea. Korean Existing Chemicals Inventory (KECI) KECI (KR) Does not conform Philippines Inventory of Chemicals and Chemical PICCS (PH) Conforms to Substances (PICCS) Australia Inventory of Chemical Substances (AICS) **AICS** Does not conform

Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 15 / 18



LUPEROX® 256

<u>United States – Federal Regulations</u>

SARA Title III - Section 302 Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

SARA Title III - Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard, Reactivity Hazard, Fire Hazard

SARA Title III - Section 313 Toxic Chemicals:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):

<u>Chemical Name</u> <u>CAS-No.</u> <u>Reportable quantity</u>

Hexane 110-54-3 5000 lbs

United States - State Regulations

New Jersey Right to Know

No components are subject to the New Jersey Right to Know Act.

Pennsylvania Right to Know

<u>CAS-No.</u> Hexaneperoxoic acid, 2-ethyl-, 1,1,4,4-tetramethyl-1,4-

butanediyl ester

Proprietary process impurity Proprietary

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects.

16. OTHER INFORMATION

Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 16 / 18



LUPEROX® 256

Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H241	Heating may cause a fire or explosion.
H242	Heating may cause a fire.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Miscellaneous:

Other information: Refer to National Fire Protection Association (NFPA) Codes 30, 70,

77, and 497 and OSHA 29 CFR 1910.106, for safe handling. Backup or emergency refrigeration should be available in case primary refrigeration is lost. Emergency dry ice source(s) should be known in case of refrigeration failure. Temperature in storage areas should be monitored. Refrigeration systems should have high temperature

alarms to warn of loss of refrigeration.

Latest Revision(s):

Reference number: 000000034038
Date of Revision: 10/18/2015
Date Printed: 11/29/2016

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Product code: 072000 Version 3.1 Issued on: 10/18/2015 Page: 17 / 18



LUPEROX® 256

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